

there average five of the first class to eight of the second and seven of the third.

As to the first class, the object of any school work is simply to help them grow fit as soon as possible. Training for civilian life is incidental, though these patients are sometimes allowed to have some of it to buck their spirits up out of the doldrums and get them interested, or to supple the joints and muscles that require it.

The future limited service man is also viewed as an army asset, but in his case vocational training may be the very thing to qualify him to meet a pressing need, as, for instance, if he masters stenography and typewriting or telegraphy while in hospital. He thus kills two birds with one stone, the first for Uncle Sam and the second for himself; his accomplishment will serve him in the years to come, when it's over over there.

#### Problem of the S. C. D. Man:

The S. C. D. man is the fellow in whom the army is professionally least and the Government humanitarian most interested. He will neither fight any more Huns nor wear khaki any more behind the lines. He can't go back to a job like his old one, having developed a defective heart or lost a hand, and he has a living to make. What can he do most happily and successfully, with the resources he has left and the grit which it is the school's business to restore to him, if lost?

They find out, and they qualify him. The school can give him a sort of diploma which ought to turn the trick with any employer who is a white man. It can't of itself place him when he goes forth; a Federal board is organizing to attend to that. But the services of this board will not be needed in every case.

There was a sturdy buck private from Mizzourah, seh. He had been a farmer's hired man and general jack of all trades. His common schoolin' had stopped at the third year and when the French climate put him permanently out of business with lumbago he was in a fair way to go back to Mizzourah a sort of county charge. His outlook on life was a dull bluish drab, streaked with Mississippi mud, as he lay grunting and cussing in the ward.

When he heard about the educational department he took a pad and sucked a pencil and wrote a wondrous letter to the Major, confessing a smothered ambition to be a mechanic. It doesn't dovetail with lumbago and in addition he lacked what very young educators are wisely calling background; but they interested him in cobbling, led him by easy stages through the first principles of hand work to modern shoe repair machinery—and the day he was S. C. D.'d that man limped down town into Lakewood and got a job on his own hook.

Now, he says, as soon as he has some experience with women's and children's shoes he'll come to New York and some day have a repair shop of his own. And they back him to do it. He acquired a bit of book larnin' incidentally.

#### How the Work Is Divided.

The department divides its curriculum into occupational beside work and academic, commercial, industrial, agricultural, physical training and music sub-departments; the last named has a band and teaches any brass instrument to a fellow with an ear and the appropriate ambition. The occupational beside work is leather work and tooling, toy and novelty making, basketry and caning, cord work, hand and frame knitting and weaving. These crafts are taught by three women reconstruction aids, uniformed like nurses. One of them, by the way, is a playwright in private life.

Nobody expects—here that original Colonel M. D. made his fundamental mistake—that the soldier when discharged will make bill books or weave baskets or tie worsted mats for a living, although it is conceivable that he might, and might get away with it. This occupational work is preliminary; it is therapeutic, the practical, tangible part of the bucking up process. The idea is to give the patient something interesting to do, a chance to create and a chance to see quick results. None of these crafts is very hard to learn, but all the finished articles make a good showing.

The patient may keep his productions by paying the cost of materials, and so the folks at home get a variety of really attractive and practical presents. Swaps are negotiated; Bill, first bed on the right, is turning out pocketbooks; if Bill makes one for Jerry to send to his girl, Jerry three beds removed, will pay Bill back with a woven belt.

The particular Bill the writer has in mind is a youngster with freckles and a wide Irish grin full of teeth, who lies there with his lapboard and his leather

and knife and tools and with an object like a white swaddled derrick boom hoisted up from him at a weird angle—which object, seen close, turns out to be tipped with toes. They're going to save him good use of it.

Jerry, the weaver, works his shuttle with one hand, the other being his share of his country's repayment of its indebtedness to the Lafayette estate. Weaving of the sort needs two hands, but Jerry was wishful to weave, so they made a special loom that works with one.

Both Jerry and Bill had "cafard" pretty badly when they were admitted. In other words, they had the blues in an acute form. Their sole interest in life at the time was a longing to go back and reform some more Huns; a chronic impossible wish, the doctors say, is what makes neurasthenies. The leather and the loom were magical prescriptions.

Bill, who smoked a packetful of cigarettes a day in vain efforts to smudge out the blues, got so interested the morning of his first lesson that he forgot cigarettes after smoking half of one. When he can be up on crutches he'll naturally gravitate to the school, where a sergeant with a really fine human touch will manage, without firing questions at him, to discover Bill's deepest ambition in the job line. And Jerry the same.

Each of these general hospitals is equipped for all kinds of cases. But each specializes—majors, so to speak—in one or two important kinds, and patients are referred accordingly from the clearing house.

#### Especially Careful of Hearts.

No. 9 is strong upon heart ailments. Now, a soldier in whom a serious heart lesion has shown itself is obviously booked for his S. C. D., and his future occupation must involve no physical strain. But many army heart cases are merely functional, and of these, many hearts, under proper care, can be got working again as well as ever or pretty nearly. Some of them can even go back to France and thrash Huns with the best.

In cases of this latter kind the mental element is strong. The heart really is erratic enough, but tell your man so and then leave him to brood and his heart will get no better; it may get worse. Distract him, on the other hand, interest him, exercise him more and more as he can stand it, and instead of resigning himself to a lot much worse than his actually should be, and getting the hospital habit, that man in a very few weeks will be convinced that the doctor who sounded him was an idiot; he'll be up and coming, and will have to be watched for fear lest he overdo.

So at No. 9 the psychotherapy of the educational work has a particular value.

The system they have, or had, for classifying and arranging students eliminated inquisitions and paper work very handily. The doctor in charge of the case began by filling out a notification card, with the patient's name, ward, &c., the class of work of which he was physically capable, the class of duty to which he was likely to be returned if not discharged, the hours a day he might meanwhile work, whether his disability would permanently bar him from his former occupation, &c.

That card turned in, the patient himself was canvassed for the school. If it looked good to him and he appeared to investigate, the survey man, a young former high school principal by the stimulating name of Coffeen, had a heart to heart talk with him, quietly filling in a sort of case record as they talked.

Sergeant Coffeen didn't begin with a quiz on vital statistics. Remember that

between the dressing station on the battlefield and No. 9 in Lakewood, N. J., U. S. A., the wounded soldier has passed through a number of hospitals and stations, in some cases a dozen or more. At each they have demanded: Age? Married? Single? White? Colored? Weight? and so on like a Browning gun until Private Doe has grown heartily sick of these details of his personal identity, and the best way to drive him straight into his shell is to ask him to state them once more.

Coffeen gets his information, but he does it with more tact; he also gets under the skin of Private Doe and en rapport with him. There is no technic for doing this; you have to be born a Coffeen, who is a natural artist at what fulsome people call big brothering—Coffeen does not.

When that case record is filled it appears what Private Doe would like best to study, what he would like next best, which he seems better fitted to make good at and what the doctor thinks about his tackling the work. The rest is his assignment to his class.

Of course it is not possible to keep a clock-work schedule of classes. The doctors have first call on the patient and want a good deal of his time. He comes to school as he can and when there, in the nature of things, he has to have painstaking individual instruction. This is easily possible, there being about one instructor to ten students.

If Private Doe skips school right along, which does happen in some cases, there is no direct way to enforce his attendance, assuming that that were desirable. What can be done is to learn from the doctor whether he has a legitimate excuse, and if he has not, an aggravated truant who really ought to show up if only for the sake of his own cure is likely to find himself deprived of the coveted passes to go down town and other privileges. The average daily attendance is two-thirds of the enrolment, which Major Reagle considers very good.

The excellent simple system above described is now in some jeopardy, a committee of expert paper workers in high places having just wished a masterpiece of complicated paper work on the hapless department at No. 9. It is a blank form, several pages long, and about as intricate as the offspring of a draft questionnaire wedded to an income tax return blank.

#### Shop Work Prescribed by Doctor.

It is planned on the assumption that all the shopwork, &c., will be prescribed by the doctor, like medicine, to suit the special physical needs of poor Private Doe, and without much reference to Doe's own inclinations. That might work fairly well up at No. 3, near Colonia, where they specialize in bone and joint cases. At No. 9 it won't, and the staff is wondering how to use it without adding a clerical force and keep everybody happy.

Major Reagle—the rest of his name is Fred P.—was the manual training supervisor in the schools of Montclair before he was commissioned, and he will be again when he is mustered out. The members of his staff are either deferred class draft men of the 1917 registration who volunteered for limited service and made good or they are themselves former patients, some of them back from France, and now on the limited service rolls.

They include college and university men. One of these, and one of the best of them, came back with the very worst case of "cafard" the department has so far seen. He had been an ambulance driver. His nerves were pretty much shell wracked, one of his lungs was lightly bgt

plainly threatened, his pep was gone. The lung had taken care of itself under treatment. The rest had not.

The Major got him interested in teaching Private Doe, national hero in ordinary, how to spell "Yours received" and so on in a business letter. Now that instructor is the keenest man on the staff; he says it's given him everything to live for all over again.

Perhaps a list of the subjects taught will explain for itself the scope of such a school:

Academic Department—English to foreigners and illiterates, elementary school subjects, high school subjects, French.

Commercial Department—Bookkeeping, penmanship, commercial art, business practice, commercial advertising, business English, typewriting, rapid calculation, shorthand, stenotypy.

#### Many Parts in Industrial Side.

Industrial Department—Auto mechanics, armature winding, mechanical draughting, architectural draughting, machine design, shoe repairing, industrial arts, fine arts, electrical work, linotyping, machine shop practice, wood carving, monotyping, sheet metal working, printing, upholstering and furniture repair, shop mathematics, toy making and novelty handicraft, surveying and mapping, telegraphy, woodworking (three branches), telephone switchboard operation. Movie operating and X-ray assistants technic have been added.

Agricultural—Gardening, farm mechanics, greenhouse work, cooperative farming, cooperative chicken raising.

Physical Training—Setting up work and exercises on doctor's prescription.

The writer was hearing about it in the Major's office pen when a boy of 20 or under, with rather weary eyes and the hospital look about him, dropped in and took a chair. With all due respect for a distinguished young American who has figured in the newspapers of three continents, he didn't look as if his first razor had ever needed to be honed. He stood about 5 feet 5 and at that he was what the New Englander calls a rather small boned young feller. What was left of his left hand was recognizable as having been a hand.

His name is withheld because he is fed with acclamations. It happened in the Toul sector, a quiet one, last April at 2:30 A. M., or exactly thirty minutes after the hour when courage, according to Napoleon, is rarest.

The subject of our remarks was taking coffee and things to an outpost in No Man's Land at the end of a shallow trench. He heard a rumble and then figures loomed up before and around him and the largest barked at him in French. He didn't know much French at the time, he says.

The Heinies had jumped the outpost, seeking prisoners. They wanted him in that capacity. He hesitated, thinking it might be a French patrol, but made out in time that he was requested to come along for a dirty Yankee.

#### Found He Had Lost Fingers.

He dropped his coffee and reached for his "gat" and a grenade and his left hand fingers went off at the motion. He discovered the loss of fingers later on. The big man in front was trying to grapple him; he jammed the "gat" in the big man's face and pulled. Then, he says, the others ran like hell for their own wire, but not before one had smashed him over the head with the butt of a rifle. Somehow he crawled back to our front trench with a fractured skull.

Next day they found that his Heinie was wearing a complete map of the German outposts, upon which a handy barrage was promptly laid. (The man also had the keys to the padlocks with which Hun machine gunners were shackled to their tripods.) And so what with one thing and another, the French General cited the kid for the Croix de Guerre and his own commander for the Distinguished Service Medal and they sent him home and he's at present awaiting his D. S. C.

"It bothered me for weeks, having killed that guy," he says. "Daytimes, of course, I wanted to go and kill more, but nights I dreamed about it. Brave? Nah! I won't say they are. I bet if I'd hit a guy over the head I'd stayed and finished him up 'stead of beating it like that outfit did."

He will go back to his old job, that of instructor in a big machine shop, and so perhaps he is not a typical example of the benefits of the school. But he is getting all kinds of good out of the carpentry he is doing—and then a Croix de Guerre man is a Croix de Guerre man and makes good copy anywhere you find him.

## Our Sensitive Planet

ONE naturally thinks of the earth's crust as being exceedingly solid and stable, except perhaps in volcanic regions where earthquakes are of frequent occurrence. As a matter of fact, however, the shell of our planet is extremely sensitive and delicately balanced, so that under the influence of causes that seem altogether insignificant in comparison with the gigantic bulk and weight of the earth it yields and fluctuates in a most amazing manner.

To an eye so placed as to be capable of taking in at one comprehensive glance the whole round outline of the globe it would not appear of precisely the same shape during an entire day or even an hour. Most of the changes referred to are, of course, very slight when compared with the size of the earth itself.

The operation of atmospheric and oceanic and other similar causes is continually bringing about changes in the shape of the earth's crust. One of the most interesting of the agencies whereby

such alterations are effected is the carrying power of rivers.

Wherever a great quantity of sand and gravel is being brought down from the interior of a continent and poured into the sea, as for instance, along the northwestern coast of Europe or the Gulf coast of the United States, the weight of the earth's crust is slowly increased, and the consequence is seen in the gradual subsidence of the shore.

Such a sinking has been going on for thousands of years along the North Sea coast and on the continental side of the British Channel. A similar depression is occurring on the eastern edge of our own country and along the Gulf of Mexico. It has been estimated that the Gulf coast is sinking at the rate of nearly two feet in a century.

Corresponding elevations must of course occur elsewhere. And to these slow changes in the level of the earth's crust earthquakes are due, as well as to the more violent local disturbances created by volcanic action.